



IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney(s): Kurt Thiessen et al.

Confirmation No.: 7238

Application No.: 10/607,892

Examiner: Ly T. Tran

Filing Date: June 27, 2003

Group Art Unit: 2853

Title: SYSTEM AND METHOD OF PRINTING WITHIN CIRCULAR AREA

Mail Stop Appeal Brief-Patents
Commissioner For Patents
PO Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL OF APPEAL BRIEF

Sir:

Transmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed on Sept. 1, 2005.

The fee for filing this Appeal Brief is (37 CFR 1.17(c)) \$500.00.

(complete (a) or (b) as applicable)

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.

() (a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d) for the total number of months checked below:

- | | |
|------------------|-----------|
| () one month | \$120.00 |
| () two months | \$450.00 |
| () three months | \$1020.00 |
| () four months | \$1590.00 |

() The extension fee has already been filled in this application.

(X) (b) Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Please charge to Deposit Account **08-2025** the sum of \$500.00. At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees. A duplicate copy of this sheet is enclosed.

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Respectfully submitted,

Kurt Thiessen et al.

By

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND
INTERFERENCES

Applicant: Kurt Thiessen et al. Examiner: Ly T. Tran
Serial No.: 10/607,892 Group Art Unit: 2853
Filed: June 27, 2003 Docket: 100110947-1
Title: SYSTEM AND METHOD OF PRINTING WITHIN CIRCULAR AREA

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Mail Stop Appeal Brief – Patents

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir/Madam:

This Appeal Brief is presented in response to the Notice of Panel Decision from Pre-Appeal Brief Review mailed October 12, 2005, and in support of the Notice of Appeal filed September 1, 2005 from the Final Office Action mailed June 1, 2005 rejecting claims 1-3, 7-15, 19-27, 31-38, 40, and 42-49 of the above-identified application.

The U.S. Patent and Trademark Office is hereby authorized to charge **Deposit Account No. 08-2025** in the amount of **\$500.00** for Filing a Brief in Support of an Appeal as set forth under 37 C.F.R. 1.17(c). At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account 08-2025 pursuant to 37 C.F.R. 1.25. Additionally, please charge any fees required under 37 C.F.R. 1.16, 1.17, 1.19, 1.20, and 1.21 to Deposit Account 08-2025.

Appellant respectfully requests reversal of the Examiner's rejection of pending claims 1-3, 7-15, 19-27, 31-38, 40, 42-46, and 48-49.

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REAL PARTY IN INTEREST

The real party in interest is Hewlett-Packard Development Company, LP having a principal place of business at 20555 S.H. 249 Houston, TX 77070, U.S.A. (hereinafter "HPDC"). HPDC is a Texas limited partnership and is a wholly-owned affiliate of Hewlett-Packard Company, a Delaware corporation, headquartered in Palo Alto, CA. The general or managing partner of HPDC is HPQ Holdings, LLC.

RELATED APPEALS AND INTERFERENCES

Appellant submits that there are no related appeals or interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal.

STATUS OF CLAIMS

Claims 1-3, 7-15, 19-27, 31-38, 42-46, and 48-49 are pending in the application (see Claims Appendix), and are the subject of the present Appeal. Claims 5, 6, 17, 18, 29, 30, 40, and 41 have been withdrawn from consideration as being directed to a non-elected species. Claims 4, 16, 28, and 39 were previously cancelled and claim 47 was cancelled in the Amendment and Response filed July 26, 2005.

Claims 1-3, 7-15, and 19-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Bradshaw et al. U.S. Patent No. 6,264,295.

Claims 25-27, 29-38, and 42-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bradshaw et al. U.S. Patent No. 6,264,295 in view of Yuji JP0631906.

Claims 48-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bradshaw et al. U.S. Patent No. 6,264,295 in view of Yuji JP0631906.

STATUS OF AMENDMENTS

With the Amendment and Response filed July 26, 2005 in reply to the Final Office Action mailed June 1, 2005, claim 47 was cancelled and claim 48 was rewritten in independent form. As identified in the Advisory Action mailed August 8, 2005, these amendments were entered for purposes of appeal. The claims listed in the Claims Appendix, therefore, reflect the claims as of July 26, 2005.

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SUMMARY OF THE CLAIMED SUBJECT MATTER

One aspect of the present invention, as claimed in independent claim 1, provides a method of printing within a circular area (26) of a media (19). The method includes positioning a printhead (12) including at least one column (301) of nozzles (13) above the circular area of the media and orienting the at least one column of nozzles substantially perpendicular to a radius (261) of the circular area extended below the printhead, rotating the media relative to the printhead, and printing at least one arcuate print pattern (40) within the circular area of the media with the printhead while rotating the media, with the printing including printing substantially perpendicular to the radius of the circular area of the media (see, e.g., Specification at p. 6, line 11 - p. 7, line 24; and Fig. 4).

One aspect of the present invention, as claimed in independent claim 13, provides a system for printing within a circular area (26) of a media (19). The system includes a printhead (12) including at least one column (301) of nozzles (13) adapted to be oriented substantially perpendicular to a radius (261) of the circular area extended below the printhead, and includes an assembly (18) adapted to rotate the media relative to the printhead such that the printhead is adapted to print substantially perpendicular to the radius of the circular area of the media and print at least one arcuate print pattern (40) within the circular area of the media as the assembly rotates the media relative to the printhead (see, e.g., Specification at p. 3, line 16 - p. 5, line 4; p. 6, line 11 - p. 7, line 24; and Figs. 1 and 4).

One aspect of the present invention, as claimed in independent claim 25, provides a method of printing on and recording to an optical data storage disk (120). The method includes positioning a printhead (12) adjacent a first side of the optical data storage disk and orienting a column (301) of nozzles (13) of the printhead substantially perpendicular to a radius (261) of the optical data storage disk extended below the printhead, positioning a recording head (130) adjacent a second side of the optical data storage disk opposite the first side thereof, rotating the optical data storage disk relative to the printhead and the recording head, printing at least one arcuate print pattern (40) on the optical data storage disk with the printhead while rotating the optical data storage disk, with the printing including printing substantially perpendicular to the radius of the optical data storage disk, and recording to the optical data storage disk with the recording head while rotating the optical data storage disk

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(see, e.g., Specification at p. 6, line 11 - p. 7, line 24; p. 8, line 21 - p. 10, line 4; and Figs. 4 and 6).

One aspect of the present invention, as claimed in independent claim 36, provides a system for printing on and recording to an optical data storage disk (120). The system includes a printhead (12) adapted to be positioned adjacent a first side of the optical data storage disk and including at least one column (301) of nozzles (13), with the at least one column of nozzles adapted to be oriented substantially perpendicular to a radius (261) of the optical data storage disk extended below the printhead, a recording head (130) adapted to be positioned adjacent a second side of the optical data storage disk opposite the first side thereof, and an assembly (18) adapted to rotate the optical data storage disk relative to the printhead and the recording head, wherein the printhead is adapted to print substantially perpendicular to the radius of the optical data storage disk and print at least one arcuate print pattern (40) on the optical data storage disk as the assembly rotates the optical data storage disk relative to the printhead, and wherein the recording head is adapted to record to the optical data storage disk as the assembly rotates the optical data storage disk relative to the recording head (see, e.g., Specification at p. 3, line 16 - p. 5, line 4; p. 6, line 11 - p. 7, line 24; p. 8, line 21 - p. 10, line 4; and Figs. 1, 4, and 6).

One aspect of the present invention, as claimed in independent claim 48, provides a system for processing an optical data storage disk (120). The system includes means for rotating (18) the optical data storage disk, and means for simultaneously printing (12) on the optical data storage disk from a first side of the optical data storage disk and recording (130) to the optical data storage disk from a second side of the optical data storage disk opposite the first side as the optical data storage disk rotates, wherein means for simultaneously printing on and recording to the optical data storage disk includes a printhead (12) positioned on the first side of the optical data storage disk, wherein the printhead includes at least one column (301) of nozzles (13) oriented substantially perpendicular to a radius (261) of the optical data storage disk extended below the printhead, and wherein the printhead is adapted to print substantially perpendicular to the radius of the optical data storage disk (see, e.g., Specification at p. 3, line 16 - p. 5, line 4; p. 6, line 11 - p. 7, line 24; p. 8, line 21 - p. 10, line 4; and Figs. 1, 4, and 6).

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GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Appellant seeks review of the rejection of claims 1-3, 7-15, and 19-24 under 35 U.S.C. 102(b) as being anticipated by Bradshaw et al. U.S. Patent No. 6,264,295.

Appellant seeks review of the rejection of claims 25-27, 29-38, and 42-46 under 35 U.S.C. 103(a) as being unpatentable over Bradshaw et al. U.S. Patent No. 6,264,295 in view of Yuji JP0631906.

Appellant seeks review of the rejection of claims 48-49 under 35 U.S.C. 103(a) as being unpatentable over Bradshaw et al. U.S. Patent No. 6,264,295 in view of Yuji JP0631906.

ARGUMENT

I. Rejection Under 35 U.S.C. § 102

A. Applicable Law

To anticipate a claim under 35 U.S.C. 102, a reference must teach every element of the claim. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) ("A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference").

B. Rejection of claims 1-3, 7-15, and 19-24 under 35 U.S.C. §102(b)

Because the Bradshaw et al. U.S. Patent No. 6,264,295 fails to teach each and every element of the claims, the rejection of claims 1-3, 7-15, and 19-24 under 35 U.S.C. 102(b) is not correct and should be withdrawn.

Independent claim 1 includes printing substantially perpendicular to the radius of the circular area of the media, and **independent claim 13** recites that the printhead is adapted to print substantially perpendicular to the radius of the circular area of the media.

As suggested by the title "Radial Printing System and Methods," the Bradshaw et al. patent discloses a printing system configured to "print radially" onto a rotating media with a head assembly that "radially dispenses ink" onto the print media such that the print head prints "along a radial line" with respect to the rotating media (col. 4, line 58 - col. 5, line 1). As such, the head assembly 210 of the Bradshaw et al. patent moves along a radial direction

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212 and represents a mechanism for "radially printing" onto media 220 while the media 220 rotates in a circular direction 214 (col. 5, lines 46-61; Fig. 2).

Reference numeral 214 of the Bradshaw et al. patent, therefore, illustrates the circular direction in which media 220 rotates not the direction in which the head assembly 210 prints. Radial printing of the Bradshaw et al. patent is illustrated, for example, by printed lines 702 and 704 of Fig. 7. By printing along a radial line, the Bradshaw et al. patent, therefore, prints parallel with a radius of the media. Independent claims 1, 13, 25, 36, and 48 of the present application, however, each include printing perpendicular to a radius of the media.

For at least the reasons set forth above, Appellant submits that the Bradshaw et al. patent does not teach or suggest each and every element of independent claims 1 and 13. Accordingly, Appellant submits that independent claims 1 and 13 are each patentably distinct from the Bradshaw et al. patent. Furthermore, as dependent claims 2, 3, and 7-12 further define patentably distinct claim 1, and dependent claims 14, 15, and 19-24 further define patentably distinct claim 13, Appellant submits that these dependent claims are also patentably distinct from the Bradshaw et al. patent. Appellant, therefore, respectfully submits that the rejection of claims 1-3, 7-15, and 19-24 under 35 U.S.C. 102(b) is not correct and should be withdrawn, and that claims 1-3, 7-15, and 19-24 should be allowed.

II. Rejections Under 35 U.S.C. §103

A. Applicable Law

Under 35 U.S.C. §103, the Examiner has the burden to establish a *prima facie* case of obviousness. *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Three criteria must be satisfied to establish a *prima facie* case of obviousness. First, the Examiner must show that some objective teaching in the prior art or some knowledge generally available to one of ordinary skill in the art would teach, suggest, or motivate one to modify a reference or to combine the teachings of multiple references. *Id.* Second, the prior art can be modified or combined only so long as there is a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Third, the prior art reference or combined prior art references must teach or suggest all of the claim limitations. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). These three criteria are also set forth in M.P.E.P. §706.02(j). Even when obviousness is based on a single reference, there

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must be a showing of suggestion or motivation to modify the teachings of that reference. *In re Kotzab*, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). In performing the obviousness inquiry under 35 U.S.C. §103, the Examiner must avoid hindsight. *In re Bond*, 910 F.2d 831, 834, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990), *reh'g denied*, 1990 U.S. App. LEXIS 19971 (Fed. Cir. 1990).

B. Rejections of claims 25-27, 29-38, and 42-46, and claims 48-49 under 35 U.S.C. §103(a)

Because the rejection of claims 25-27, 29-38, and 42-46 under 35 U.S.C. 103(a) as being unpatentable over Bradshaw et al. U.S. Patent No. 6,264,295 in view of Yuji JP0631906, and the rejection of claims 48-49 under 35 U.S.C. 103(a) as being unpatentable over Bradshaw et al. U.S. Patent No. 6,264,295 in view of Yuji JP0631906 each fail to establish a *prima facie* case of obviousness, the rejections of claims 25-27, 29-38, and 42-46, and claims 48-49 are not correct and should be withdrawn.

Independent claim 25 includes printing substantially perpendicular to the radius of the optical data storage disk, and **independent claim 36** recites that the printhead is adapted to print substantially perpendicular to the radius of the optical data storage disk. In addition, **independent claim 48** recites that the printhead is adapted to print substantially perpendicular to the radius of the optical data storage disk.

The Examiner contends that the Bradshaw et al. patent discloses a method of printing on an optical data storage disk comprising positioning a printhead adjacent a first side of the optical data storage disk, including orienting a column of nozzles of the printhead substantially perpendicular to a radius of the optical data storage disk extended below the printhead, rotating the optical data storage disk relative to the printhead and printing at least one arcuate print pattern on the optical data storage disk with the printhead while rotating the optical data storage disk and printing substantially perpendicular to the radius of the circular area of the media (Final Rejection mailed June 1, 2005, at page 5, para. 4). In addition, the Examiner contends that the Bradshaw et al. patent discloses a printhead including at least one column of nozzles above the circular area of the media, including orienting the at least one column of nozzles substantially perpendicular to a radius of the circular area extended below the printhead, and means for rotating the disk (Final Rejection mailed June 1, 2005, at page 7, para. 5).

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The Examiner recognizes, however, that the Bradshaw et al. patent fails to teach a recording head adjacent a second side of the optical data storage disk opposite the first side and recording to the optical data storage disk with the recording head while rotating the optical data storage disk (Final Rejection mailed June 1, 2005, at page 6, lines 7-9), and fails to teach simultaneously printing on the optical data storage disk from a first side of the optical data storage disk and recording to the optical data storage disk from a second side of the optical data storage disk opposite the first side as the optical data storage disk rotates (Final Rejection mailed June 1, 2005, at page 7, para. 5).

Accordingly, the Examiner contends that Yuji teaches a recording head adjacent a second side of the optical data storage disk opposite the first side and recording to the optical data storage disk with the recording head while rotating the optical data storage disk (Final Rejection mailed June 1, 2005, at page 6, lines 10-12), and suggests that it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the printing head and recording head one on each side of the disk for printing and recording data onto the disk as taught by Yuji (Final Rejection mailed June 1, 2005, at page 7, lines 4-7). In addition, the Examiner contends that Yuji teaches simultaneously printing on the optical data storage disk from a first side of the optical data storage disk and recording to the optical data storage disk from a second side of the optical data storage disk opposite the first side as the optical data storage disk rotates (Final Rejection mailed June 1, 2005, at page 7, lines 18-21), and suggests that it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the printing head and recording head one on each side of the disk for printing and recording data onto the disk as taught by Yuji (Final Rejection mailed June 1, 2005, at page 8, lines 1-4).

As outlined above, the Bradshaw et al. patent discloses a printing system configured to "print radially" onto a rotating media with a head assembly that "radially dispenses ink" onto the print media such that the print head prints "along a radial line" with respect to the rotating media (col. 4, line 58 - col. 5, line 1). As such, the head assembly 210 of the Bradshaw et al. patent moves along a radial direction 212 and represents a mechanism for "radially printing" onto media 220 while the media 220 rotates in a circular direction 214 (col. 5, lines 46-61; Fig. 2). The Bradshaw et al. patent, however, does not teach or suggest

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printing perpendicular to a radius of the media. Rather, the Bradshaw et al. patent discloses printing parallel with a radius of the media.

Accordingly, Appellant submits that modifying the Bradshaw et al. patent in view of Yuji, in the manner suggested by the Examiner, does not overcome the shortcomings of the Bradshaw et al. patent and, therefore, does not teach or suggest all of the limitations of the present claims. To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

In view of the above, Appellant submits that the Examiner has not established a *prima facie* case of obviousness of independent claims 25, 36, and 48, and that independent claims 25, 36, and 48 are each patentably distinct from the Bradshaw et al. patent and Yuji. Furthermore, as dependent claims 26, 27, and 31-35 further define patentably distinct claim 25, dependent claims 37, 38, and 42-46 further define patentably distinct claim 36, and dependent claim 49 further defines patentably distinct claim 48, Appellant submits that these dependent claims are also patentably distinct from the Bradshaw et al. patent and Yuji. Appellant, therefore, respectfully submits that the rejections of claims 25-27, 29-38, 42-46, and 48-49 under 35 U.S.C. §103(a) are not correct and should be withdrawn, and that claims 25-27, 29-38, 42-46, and 48-49 should be allowed.

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CONCLUSION

For the above reasons, Appellant respectfully submits that the art of record neither anticipates nor renders obvious the claimed invention. Thus, the claimed invention does patentably distinguish over the art of record. Appellant, therefore, respectfully submits that the above rejections of claims 1-3, 7-15, 19-27, 31-38, 42-46, and 48-49 are not correct and should be withdrawn, and respectfully requests that the Examiner be reversed and that all pending claims be allowed.

Any inquiry regarding this Appeal Brief should be directed to either Robert D. Wasson at Telephone No. (360) 212-2338, Facsimile No. (360) 212-3060 or Scott A. Lund at Telephone No. (612) 573-2006, Facsimile No. (612) 573-2005. In addition, all correspondence should continue to be directed to the following address:

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Intellectual Property Administration
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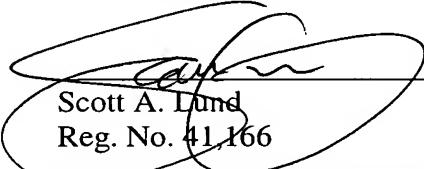
Respectfully submitted,

Kurt Thiessen et al.

By their attorneys,

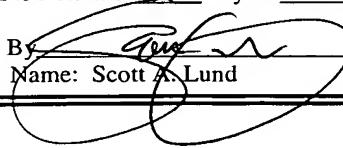
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CERTIFICATE UNDER 37 C.F.R. 1.8:

The undersigned hereby certifies that this paper or papers, as described herein, are being deposited in the United States Postal Service, as first class mail, in an envelope address to: Mail Stop Appeal Brief – Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 10th day of November, 2005.


Name: Scott A. Lund

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CLAIMS APPENDIX

1. (Previously Presented) A method of printing within a circular area of a media, the method comprising:

positioning a printhead including at least one column of nozzles above the circular area of the media, including orienting the at least one column of nozzles substantially perpendicular to a radius of the circular area extended below the printhead;

rotating the media relative to the printhead; and

printing at least one arcuate print pattern within the circular area of the media with the printhead while rotating the media, including printing substantially perpendicular to the radius of the circular area of the media.

2. (Original) The method of claim 1, wherein positioning the printhead includes orienting the at least one column of nozzles substantially parallel to a tangent of the circular area at the radius of the circular area.

3. (Original) The method of claim 1, wherein printing the at least one arcuate print pattern includes printing the at least one arcuate print pattern along an arc centered about a center of the circular area of the media.

4. (Cancelled)

5. (Withdrawn) The method of claim 1, wherein printing the at least one arcuate print pattern includes printing concentric print patterns within the circular area of the media.

6. (Withdrawn) The method of claim 1, wherein printing the at least one arcuate print pattern includes printing a spiral print pattern within the circular area of the media.

7. (Original) The method of claim 1, wherein the at least one column of nozzles includes a first column of nozzles and a second column of nozzles spaced from and oriented substantially parallel to the first column of nozzles, and wherein printing the at least one

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arcuate print pattern includes printing a first arcuate print pattern with the first column of nozzles and a second arcuate print pattern with the second column of nozzles.

8. (Original) The method of claim 1, further comprising:

moving the printhead and the media relative to each other in a direction substantially parallel to the radius of the circular area of the media.

9. (Original) The method of claim 8, wherein moving the printhead and the media relative to each other includes moving the printhead along the radius of the circular area of the media.

10. (Original) The method of claim 1, wherein the circular area of the media includes an annular area of the media.

11. (Original) The method of claim 1, wherein the media includes an optical data storage disk.

12. (Original) The method of claim 1, wherein the media includes a label for an optical data storage disk.

13. (Previously Presented) A system for printing within a circular area of a media, the system comprising:

a printhead including at least one column of nozzles, the at least one column of nozzles adapted to be oriented substantially perpendicular to a radius of the circular area extended below the printhead; and

an assembly adapted to rotate the media relative to the printhead,
wherein the printhead is adapted to print substantially perpendicular to the radius of the circular area of the media and print at least one arcuate print pattern within the circular area of the media as the assembly rotates the media relative to the printhead.

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14. (Original) The system of claim 13, wherein the at least one column of nozzles are adapted to be oriented substantially parallel to a tangent of the circular area at the radius of the circular area.

15. (Original) The system of claim 13, wherein the at least one arcuate print pattern follows an arc centered about a center of the circular area of the media.

16. (Cancelled)

17. (Withdrawn) The system of claim 13, wherein the at least one arcuate print pattern includes concentric print patterns.

18. (Withdrawn) The system of claim 13, wherein the at least one arcuate print pattern includes a spiral print pattern.

19. (Original) The system of claim 13, wherein the at least one column of nozzles includes a first column of nozzles and a second column of nozzles spaced from and oriented substantially parallel to the first column of nozzles, and wherein the printhead is adapted to print a first arcuate print pattern with the first column of nozzles and a second arcuate print pattern with the second column of nozzles.

20. (Original) The system of claim 13, wherein the printhead is adapted to move relative to the media in a direction substantially parallel to the radius of the circular area of the media.

21. (Original) The system of claim 13, wherein the printhead is adapted to move relative to the media along the radius of the circular area of the media.

22. (Original) The system of claim 13, wherein the circular area of the media includes an annular area of the media.

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23. (Original) The system of claim 13, wherein the media includes an optical data storage disk.

24. (Original) The system of claim 13, wherein the media includes a label for an optical data storage disk.

25. (Previously Presented) A method of printing on and recording to an optical data storage disk, the method comprising:

positioning a printhead adjacent a first side of the optical data storage disk, including orienting a column of nozzles of the printhead substantially perpendicular to a radius of the optical data storage disk extended below the printhead;

positioning a recording head adjacent a second side of the optical data storage disk opposite the first side thereof;

rotating the optical data storage disk relative to the printhead and the recording head;

printing at least one arcuate print pattern on the optical data storage disk with the printhead while rotating the optical data storage disk, including printing substantially perpendicular to the radius of the optical data storage disk; and

recording to the optical data storage disk with the recording head while rotating the optical data storage disk.

26. (Original) The method of claim 25, wherein positioning the printhead includes orienting the column of nozzles substantially parallel to a tangent of the optical data storage disk at the radius of the optical data storage disk.

27. (Original) The method of claim 25, wherein printing the at least one arcuate print pattern includes printing the at least one arcuate print pattern along an arc centered about a center of the optical data storage disk.

28. (Cancelled)

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29. (Withdrawn) The method of claim 25, wherein printing the at least one arcuate print pattern includes printing concentric print patterns on the optical data storage disk.

30. (Withdrawn) The method of claim 25, wherein printing the at least one arcuate print pattern includes printing a spiral print pattern on the optical data storage disk.

31. (Original) The method of claim 25, wherein printing on the optical data storage disk and recording to the optical data storage disk includes simultaneously printing on the optical data storage disk and recording to the optical data storage disk.

32. (Original) The method of claim 25, wherein printing on the optical data storage disk and recording to the optical data storage disk includes printing on the optical data storage disk and recording to the optical data storage disk while rotating the optical data storage disk at a predetermined speed.

33. (Original) The method of claim 25, further comprising:

moving the printhead and the optical data storage disk relative to each other and the recording head and the optical data storage disk relative to each other in a direction substantially parallel to the radius of the optical data storage disk.

34. (Original) The method of claim 33, wherein moving the printhead and the optical data storage disk relative to each other includes moving the printhead along the radius of the optical data storage disk relative to the optical data storage disk.

35. (Original) The method of claim 33, wherein moving the printhead and the optical data storage disk relative to each other and the recording head and the optical data storage disk relative to each other includes moving the printhead relative to the optical data storage disk at a predetermined speed and moving the recording head relative to the optical data storage disk at the predetermined speed.

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36. (Previously Presented) A system for printing on and recording to an optical data storage disk, the system comprising:

a printhead adapted to be positioned adjacent a first side of the optical data storage disk and including at least one column of nozzles, the at least one column of nozzles adapted to be oriented substantially perpendicular to a radius of the optical data storage disk extended below the printhead;

a recording head adapted to be positioned adjacent a second side of the optical data storage disk opposite the first side thereof; and

an assembly adapted to rotate the optical data storage disk relative to the printhead and the recording head,

wherein the printhead is adapted to print substantially perpendicular to the radius of the optical data storage disk and print at least one arcuate print pattern on the optical data storage disk as the assembly rotates the optical data storage disk relative to the printhead, and

wherein the recording head is adapted to record to the optical data storage disk as the assembly rotates the optical data storage disk relative to the recording head.

37. (Original) The system of claim 36, wherein the at least one column of nozzles are adapted to be oriented substantially parallel to a tangent of the optical data storage disk at the radius of the optical data storage disk.

38. (Original) The system of claim 36, wherein the at least one arcuate print pattern follows an arc centered about a center of the optical data storage disk.

39. (Cancelled)

40. (Withdrawn) The system of claim 36, wherein the at least one arcuate print pattern includes concentric print patterns.

41. (Withdrawn) The system of claim 36, wherein the at least one arcuate print pattern includes a spiral print pattern.

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42. (Original) The system of claim 36, wherein the printhead and the recording head are adapted to simultaneously print on and record to the optical data storage disk.

43. (Original) The system of claim 36, wherein the printhead is adapted to print on the optical data storage disk and the recording head is adapted to record to the optical data storage disk as the assembly rotates the optical data storage disk at a predetermined speed.

44. (Original) The system of claim 36, wherein the printhead and the recording head are each adapted to move relative to the optical data storage disk in a direction substantially parallel to the radius of the optical data storage disk.

45. (Original) The system of claim 36, wherein the printhead is adapted to move relative to the optical data storage disk along the radius of the optical data storage disk.

46. (Original) The system of claim 36, wherein the printhead and the recording head are each adapted to move relative to the optical data storage disk at a predetermined speed.

47. (Cancelled)

48. (Previously Presented) A system for processing an optical data storage disk, the system comprising:

means for rotating the optical data storage disk; and

means for simultaneously printing on the optical data storage disk from a first side of the optical data storage disk and recording to the optical data storage disk from a second side of the optical data storage disk opposite the first side as the optical data storage disk rotates,

wherein means for simultaneously printing on and recording to the optical data storage disk includes a printhead positioned on the first side of the optical data storage disk, wherein the printhead includes at least one column of nozzles oriented substantially perpendicular to a radius of the optical data storage disk extended below the printhead, and wherein the printhead is adapted to print substantially perpendicular to the radius of the optical data storage disk.

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49. (Original) The system of claim 48, wherein means for simultaneously printing on and recording to the optical data storage disk further includes a recording head positioned on the second side of the optical data storage disk.

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EVIDENCE APPENDIX

None.

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RELATED PROCEEDINGS APPENDIX

None.